

# Evergreen Wetland Mitigation Bank

Bellfountain Road  
Philomath, Oregon

## **Long Term Management Plan**

by

**The Wetlands Conservancy**

**And Oregon Wetlands LLC**

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Table 1: Anticipated Ongoing Operations and Maintenance Costs

Figure 1: Location map

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# **1. Introduction**

## **A. Purpose of Mitigation Bank Establishment**

The Evergreen Mitigation Bank was established by an Agreement (Mitigation Bank Instrument) between the land owner and bank Sponsors Ray Fiori, Marvin Gilmour, and Alton Sullivan (Oregon Wetlands LLC), the Oregon Department of State Lands (DSL), and the U.S. Army Corps of Engineers (USACE) to compensate for unavoidable impacts to aquatic resources. This agreement required the execution of a Long Term Management Plan (LTMP) to sustain the aquatic functions and services provided by the bank in perpetuity. The Bank site consists of 174.52 acres of property (Figure 1) which includes 174.27 acres of wetland and 2,455 linear feet of stream (Evergreen Creek). This LTMP anticipates that the landowner will grant a Conservation Easement and Management Endowment to The Wetlands Conservancy (TWC). The Conservation Easement Agreement and Endowment Agreement are coordinated to be consistent with this LTMP.

## **B. Purpose of this Long-Term Management Plan**

The purpose of this LTMP is to ensure that the conservation values of the Evergreen Preserve (Preserve) are managed, monitored, and maintained in perpetuity after all the credits have been sold. This management plan identifies objectives, priorities and tasks necessary to manage and maintain the preserve, and is the basis for the endowment. Conservation values, prohibited uses, rights of affected parties, and other provisions are specified in the Conservation Easement Agreement (dated). If conflicts arise between this long-term management plan and the Conservation Easement Agreement, the Conservation Easement supersedes the LTMP. The desired future condition of the preserve is to sustain the restored, created, enhanced, and preserved aquatic functions and natural processes resulting from the mitigation project as enumerated in objectives.

## **C. Land Management and Responsibilities**

TWC shall manage the Preserve property in perpetuity consistent with the Conservation Easement, and the long-term management plan. If the Conservation easement is transferred, these duties shall likewise transfer to the new holder. Long-term management tasks shall be funded through an endowment account owned and managed by TWC exclusively for this purpose. The land owner is responsible for all duties of land ownership not expressly conferred to TWC via the Conservation Easement Agreement and is the party responsible to pay property taxes.

This management plan outlines the long-term site goals, assumed management and stewardship tasks and costs, and a monitoring strategy that requires annual review of both on the ground changes and the long-term management goals. Each year after the annual monitoring, TWC will evaluate if the tasks for the following year and long-term restoration strategies should be revised or adapted.

## **2. Property Description and Desired Future Condition**

### **A. Project Location**

This LTMP is for the Evergreen Mitigation Bank , It is located on the west side of the Bellfountain-Bordon Road intersection in T12S, R5W, Sec. 19, Tax Lot 700, (44° 30' 34", 123° 20' 27").

### **B. Baseline Conditions**

A **Baseline Documentation Report** (BDR) will be completed prior to conveyance of the conservation easement and will be referenced in the easement and the long term management plan. The BDR includes a detailed description of current conditions of the property at the time of easement conveyance.

#### ***1. HYDROLOGY***

Wetland water sources include runoff from nearby slopes, seasonal high groundwater, precipitation, and annual overbank flows from Evergreen Creek and Mary's River. Old side channels of Evergreen creek have been re-opened to encourage natural floodplain processes in the riparian zone. In addition, water storage and delay are enhanced through establishment of 3 low lying berms and 4 depressional wetlands which further delay runoff and diversify wetland hydroperiods, which are strategically located to capture hydrologic sources with locations illustrated in figure 2.

Floods in December 2005/January 2006 provided an excellent view into the site's current flood water flows and its post-flooding recoument time. On the north side of Evergreen Creek the majority of the surface flood water came either from direct precipitation or from Mary's River overflow. Draining of the surface water was via Evergreen Creek, the road ditch and overland surface flows back to the Mary's River. On the south side of Evergreen Creek the surface flood waters came from direct precipitation or overland flow from the adjacent hillside. The flood waters receded from the site via Evergreen Creek and the road side ditch.

#### ***2. HABITAT***

The preserve consists of emergent marsh, wet prairie, forested wetland, and scrub shrub wetland.

#### ***3. WILDLIFE***

The diversity of habitats helps to support a diversity of wildlife. Many rare and declining species utilize the site to nest such as the Western meadowlark, Streak horned lark, American bittern, Wilson's phalaropes, and Western bluebirds. The site also hosts an abundance of wintering waterfowl and migrating shore birds, in conjunction with mammals such as black tailed deer, Roosevelt elk, bobcats and coyotes.

#### ***4. MAN MADE STRUCTURES***

Infrastructure on the property consists of two cable gates, one at each approach from Bellfountain Road, two culverts associated with the approaches, and a gravel parking area at the south entrance. Benton County maintains ditches along Bellfountain road and associated culverts, it is the landowners responsibility to replace approach culverts if necessary which was

completed in 2006. There are 3 berms that provide diverse hydroperiods for habitat diversity. Fencing on the perimeter of property is owned and maintained by neighboring land owners.

### **C. Aquatic Functions to be conserved**

The Long-term management objectives for the Evergreen Wetland Bank and Conservation Easement are:

***Objective 1***

*Preserve and enhance the plant communities (wet prairie, emergent marsh, scrub/shrub, and Forested wetland) by maintaining dominance of native plant species characteristic of each community.*

***Objective 2***

*Actively manage invasive species to maintain the above communities.*

***Objective 3***

*Ensure the site continues to support water storage and purification functions to a similar extent as in the baseline report.*

***Objective 4***

*Maintain hydrologic conditions that support diverse wildlife habitats.*

***Objective 5***

*Protect and maintain the preserve in perpetuity to protect functions of site from inconsistent land uses.*

## **3. Conservation Threats and Catastrophic Events**

### **A. Conservation Threats**

Lands adjacent to the subject property are all zoned as Exclusive Farm Use (EFU). The following tax lot numbers represent all adjoining properties: 125300000300, 125300000400, 125190000600, 125190000501, and 125190000300. In addition, Benton County owns Bellfountain road which encompasses the entire Eastern boundary.

*Potential threats to the aquatic functions of the Evergreen Wetland bank include:*

Invasion by non-native plants such as Himalayan blackberry, reed canarygrass, English ivy, or other invasive species including macro invertebrates and wildlife that are present on neighboring properties or likely to be introduced by wildlife or flooding.

Nutria may undermine the impoundments thus indirectly affect the water table supporting wetlands. (The berms were designed to withstand this threat, and have not been compromised in 8 years of existence, however annual site monitoring will check on the stability and functionality of the impoundments)

Sediment or pollutants could enter the site from upslope sources or flood waters.

Stray livestock could enter through the unfenced boundary.

Dumping of garbage/debris at the pull-out on Bellfountain road could pose hazards to wildlife or develop into an ongoing maintenance cost.

Trespass could damage plantings and cause soil erosion.

## **B. Catastrophic Events**

Changes in hydrologic patterns, occurrences and duration as a result of climate change may challenge long-term function of the wetland. Current climate patterns predict the timing of the predominant rainfall is to be somewhat consistent, mostly falling from November through March. Changes in temperature and water regime could introduce new invasive species. The Preserve owners and TWC will not be responsible or liable for any unforeseen natural catastrophic events such as flood, drought, disease, regional pest infestation, etc., determined beyond reasonable control by DSL and USACE. The Bank is located within the floodplain of the Mary's River and has sustained the two largest floods on record since construction with no adverse effects.

Wildfire is unlikely to impact the conservation values of the Preserve as these Willamette valley wetland habitats have evolved with an active fire regime.

## **4. Management, Maintenance, and Monitoring**

### **A. Resource management**

The overall goal of long-term management plan is to sustain the ecological functions and values of the aquatic resources. The Evergreen Wetland Preserve provides high quality natural, restored, and/or enhanced habitat for wildlife and contains jurisdictional waters of the United States and the State of Oregon. Individually and collectively, these wetland, wildlife and habitat values comprise the "Conservation Values" of the Preserve.

The management priorities have been set in order to sustain Preserve goals, minimize long-term workload, and make the best use of time and resources. The highest priority will be given to tasks that have the greatest long-term benefit using available technology and resources.

Invasive plants, trespass damage or garbage dumping and any other potential threats from inconsistent uses will be identified and documented during the annual site monitoring. Adaptive management and specific tasks required to address the priorities below will be identified and scheduled as appropriate. Staff responsible for monitoring and management will have the necessary knowledge and technical skills to recognize any problems and apply appropriate management actions.

Priorities:

1. Repair any vandalism or damage that affects the duration or extent of water in the wetlands.

2. Control invasive plant and animal species before they threaten conservation values.
3. Sustain native wildlife and plant habitats.
4. Enhance habitats.

## **B. Damage and Vandalism**

Any damage or vandalism to topography that affects water flows, structures or gates, will be repaired or replaced to maintain the pre-existing functionality. Each year TWC will conduct a monitoring survey to verify whether all conditions of the easements are being met, and that there have been no encroachments or violations. TWC will inspect all gates and structures and the perimeter of the property to identify any maintenance needs or encroachments. Any litter or trespass damage will be cleaned up in the same season in which it occurred. Hazard trees that pose a threat to infrastructure or adjacent property may be felled, and will be left on site. The expected frequency of repair or replacement for each feature, and the cost, is provided in Table 1 below.

## **C. Sustaining Native Plant Communities**

Vegetation management will be the primary on-going task at the site. Native vegetation should be dominant at the site. Invasive species presence and levels should not threaten conservation values. Any Oregon Department of Agriculture listed Noxious Weeds will be controlled.

Controlling encroachment by non-native invasive species will be done in a variety of ways including physical control such as hand pulling and mowing. Chemical control will include primarily spot herbicide application by hand. In the event of a major invasive weed take over, broadcast spraying of individual areas could be used. Another method for the enhancement of native plant communities and control of invasive species that may be considered is prescribed fire. Any use of fire would comply with the current air quality and land use regulations or restrictions. Native trees and shrubs may need to be controlled to maintain open prairie.

The preferred method of control will be through physical means. However, in the event that control through physical means is not meeting long-term objectives, prescribed fire and herbicides would be the next considered control options.

Each year during the annual review, an evaluation of the effectiveness of any methods or techniques used that year will be made along with a determination to see if there are new species or problems that require special attention. At that time a review of the literature and new techniques or herbicides will be done, to determine the best approach for the following year. The expected frequencies and costs of vegetation management tasks are listed in Table 1 below.

Ultimately, an adaptive management strategy will be used. Such a strategy reassesses priorities for management on a yearly basis, using the following steps;

- Re-order target species based on the likely effects to both target and non-target species.
- Implement the plans and monitor the results of control actions.
- Evaluate the effectiveness of the methods in light of overall site goals, and use this information to modify and improve control methods.

## **D. Sustaining Wildlife Habitats**

If habitats for characteristic wildlife are noted to be deteriorating via plant succession, invasion of non-native species, or adverse land uses outside the Preserve boundaries, actions will be identified and taken to restore those habitats or mitigate the conflicts. For example, tree invasion of grassland bird habitat may be reversed by felling the trees or hedgerows may be planted to screen the ponds from a noisy or invasive land use on an adjacent property.

## **E. Wildlife Habitat Improvements**

Opportunities for wildlife habitat improvements consistent with the Conservation Values will be evaluated on an on-going basis and be implemented as needed or as funds are available.

## **F. Administration & Reporting**

TWC will manage the endowment fund prudently to provide ongoing revenue to use for management and maintenance of the property. TWC will conduct annual monitoring and reporting of the conservation values and terms and agreements defined in the conservation easement. The annual report will be signed by the TWC staff conducting the monitoring and the landowner. The annual monitoring report will be filed at the TWC office, with a backup copy at a secure location per the organization's Standards and Practices in accordance with Land Trust Alliance accreditation.

Monitoring to assure the goals and objectives of the management plan are being met will document site changes over time, and be used to determine if adjustments to the plan are warranted. The results of the annual monitoring will be kept on file at TWC and be available on request to DSL or USACE.

## **5. Transfer, Replacement, Amendments, and Notices**

This section of the LTMP mirrors the provisions of the Conservation Easement; if there are differences, the signed Easement rules.

### **A. Transfer**

The Conservation Easement provides a method to transfer the Easement to a new holder if that should become necessary. If the Conservation Easement is transferred to a new holder, as approved by DSL and the USACE, then the Endowment account shall also be transferred to ensure the ongoing management of the site according to this Plan. In such case, the new Easement Holder would assume the responsibilities of TWC as an amendment to this Plan by the DSL and the USACE, after consultation with the landowner and new easement holder.

### **B. Remedies**

Remedies available to the Wetlands Conservancy, Owner, and DSL are outlined in the conservation easement.

### **C. Replacement**

If TWC fails to implement the tasks described in this long-term management plan and is notified of such failure in writing by DSL or USACE, TWC as land manager shall have 90 days to cure such failure. If failure is not cured within 90 days, land manager may request a meeting with DSL and USACE to resolve the failure. Such meeting shall occur within 30 days or a longer period if approved by DSL or USACE. Based on the outcome of the meeting, or if no meeting is requested, DSL may designate a replacement land manager in writing by amendment of this long-term management plan.

## **D. Amendments**

The Wetlands Conservancy, Owner, USACE and DSL may meet and confer from time to time, upon written request, to discuss revision of the long-term management plan to better meet management objectives and habitat conservation values of the Preserve. The Corps must agree in writing to any revisions prior to their implementation. Within 60 days of the Corps receiving the proposed final LTMP modifications, the district engineer must notify the preserve owner, long term steward and IRT members of his intent to approve or disapprove the proposed modification.

## **E. Notices**

The USACE and DSL will be given 60-day written notice prior to any proposed modification to this LTMP. Any notices regarding this long-term management plan shall be directed to the parties as follows:

### **Conservation Easement Holder:**

The Wetlands Conservancy  
4640 SW Macadam #50  
Portland, OR 97239

### **Owner:**

Oregon Wetlands LLC  
6001 NW Gilmour Lane  
Albany, OR 97321

### **Regulatory Agencies:**

Oregon Department of State Lands  
Wetland and Waterways Division  
775 Summer St. NE, Suite 100  
Salem, OR 97301

U.S. Army Corps of Engineers  
CENWP-OD-GP  
P.O. Box 2946  
Portland, Oregon 97208-2946

## **6. Funding**

### **A. Funding**

TWC has responsibility for the long-term management of the Evergreen Preserve. These responsibilities fall into four categories: repair of any vandalism or damage that affects the duration or extent of water in the wetlands, control invasive plant and animal species before they threaten conservation values, sustain and or enhance native wildlife and plant habitats, and administration. Habitat management decisions will be guided by the priorities identified in section 4A. Separating the responsibilities into these four general categories, allows for the maximum flexibility in the use of the endowment fund.

The start date for TWC's responsibility for long-term management begins when the site is released from the mitigation bank agreement (bank closure). Until that time, income shall be reinvested into the

endowment. Thereafter, TWC will continue to re-invest interest income to ensure that the endowment will continue to provide adequate revenue for site management in perpetuity.

Table 1 contains a summary of the anticipated annual costs of long-term management for the Preserve. These costs include estimates of time and funding needed to conduct the basic monitoring site visits and vegetation management. Long-term management will be paid for with revenues from the Evergreen Preserve specified non-wasting account that is administered by TWC.

**Table 1: Anticipated Ongoing Operations and Maintenance Costs**

Work Elements	Anticipated Frequency	Target Completion Date	Units	Unit Price	Cost	Divide years	Total Annualized Cost
<b>1. Repair and Maintenance</b>							<b>\$314</b>
Berm maintenance	Every three years	As needed	3 hours	\$80	240	3	\$80
Maintain/repair signs, boundary markers, litter, and vandalism	Annual	As needed	5 hours	\$40	200		\$200
Gate replacement	25 years	As needed	2	\$50	100	25	\$4
Rock For Parking Area	30 years	As needed	30 cubic yds	\$10	300	30	\$10
Culverts Maintenance	50 years	As needed	2	\$500	1000	50	\$20
<b>2. Invasive Species Control</b>							<b>\$1,400</b>
Spot spraying invasive species	Annual	Late spring/ Summer	20 hours	\$40	800		\$800
Monitoring for invasive species, Litter, and Vandalism	Annual	Late spring/ Summer	12 hours	\$40	480		\$480
Nutria or other invasive wildlife and invertebrate control	Every other year	As needed	6 hours	\$40	240	2	\$120
<b>3. Sustain/Enhance Native Habitats</b>							<b>\$700</b>
Mowing to control exotic grasses and forbs, mimic fire	Annual	Fall	10 acres	\$60	600		\$600
Mowing of woody shrubs to reduce prairie encroachment	Every three years	Fall	5 acres	\$60	300	3	\$100
<b>4. Administration</b>							<b>\$3,211</b>
Land trust travel	6 trips/yr		170 miles/ trip	\$0.55/ mile	93.5/trip 561/yr		\$561
Neighbor communications	Annual	As needed	3 hours	\$50	150		\$150
Reporting, fiscal administration, and project MGT	Annual	Ongoing	50 hours	\$50	2500		\$2,500
Legal defense contingency**	10 years				5,000		
<b>TOTAL ANTICIPATED ANNUAL O&amp;M COSTS</b>							<b>\$5,625</b>

\*\* The Legal defense payment is a one time payment of \$5,000 that goes into The Wetlands Conservancy's legal defense fund.

Annual costs = \$5,625

Rate of return = 7%,

Assume Inflation = 3%

Capitalization Rate = 4 %

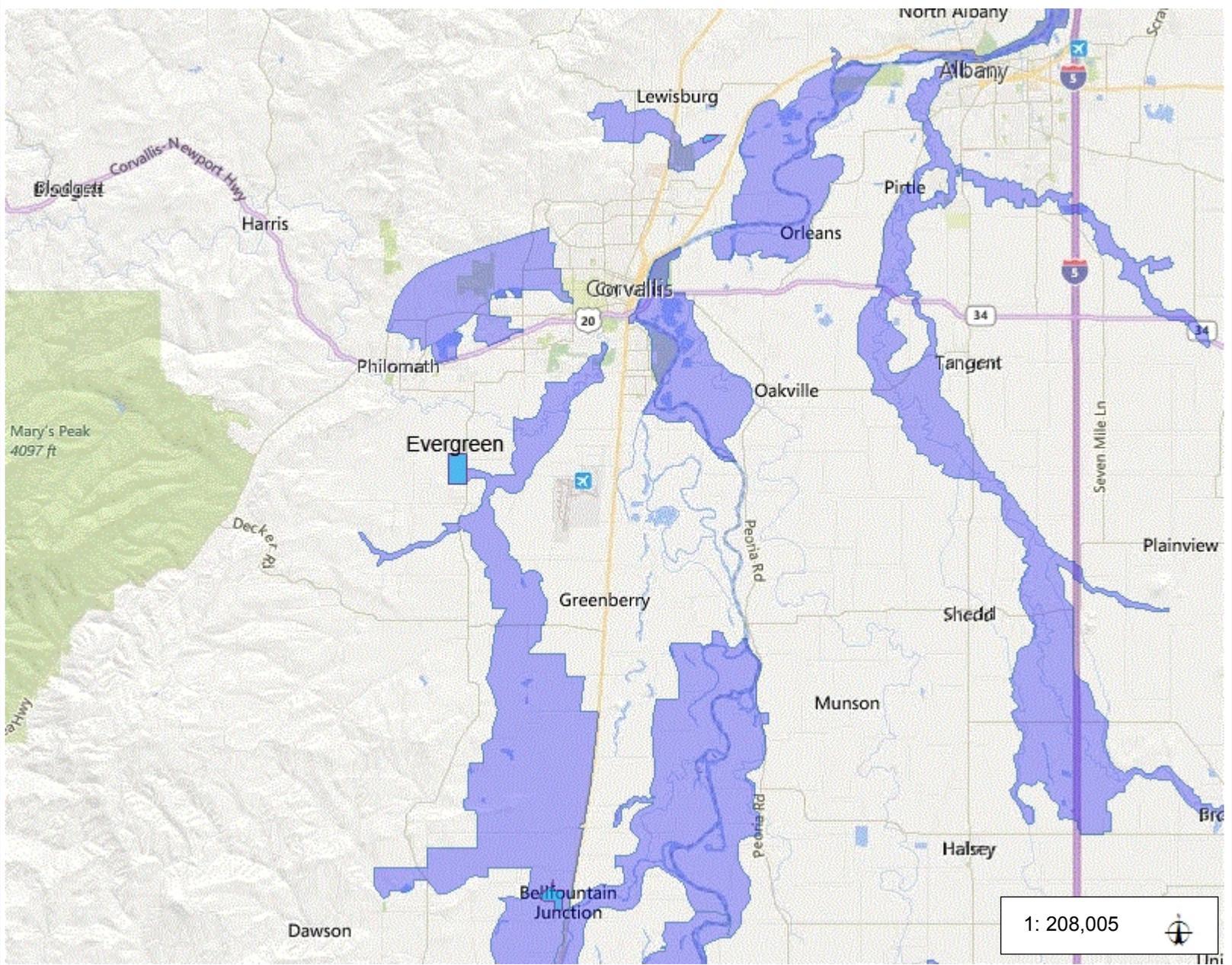
Total Anticipated Annual O&M Endowment = \$140,625

Legal defense contingency (Lump Sum) = \$5,000

Stewardship Endowment Needed= \$145,625.00

Figure 1: Location Map

# Evergreen Mitigation Bank



**Legend**

- Wetland Mitigation Bank
- Willamette Valley Ecoregion Wetland Priority Sites
- States & Provinces
- Other States and Provinces
- Oregon

**Notes**

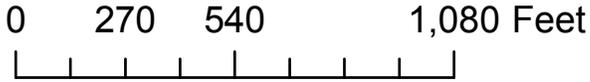
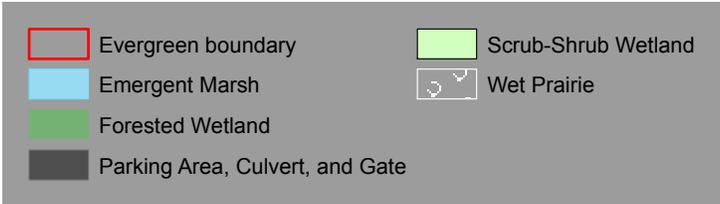
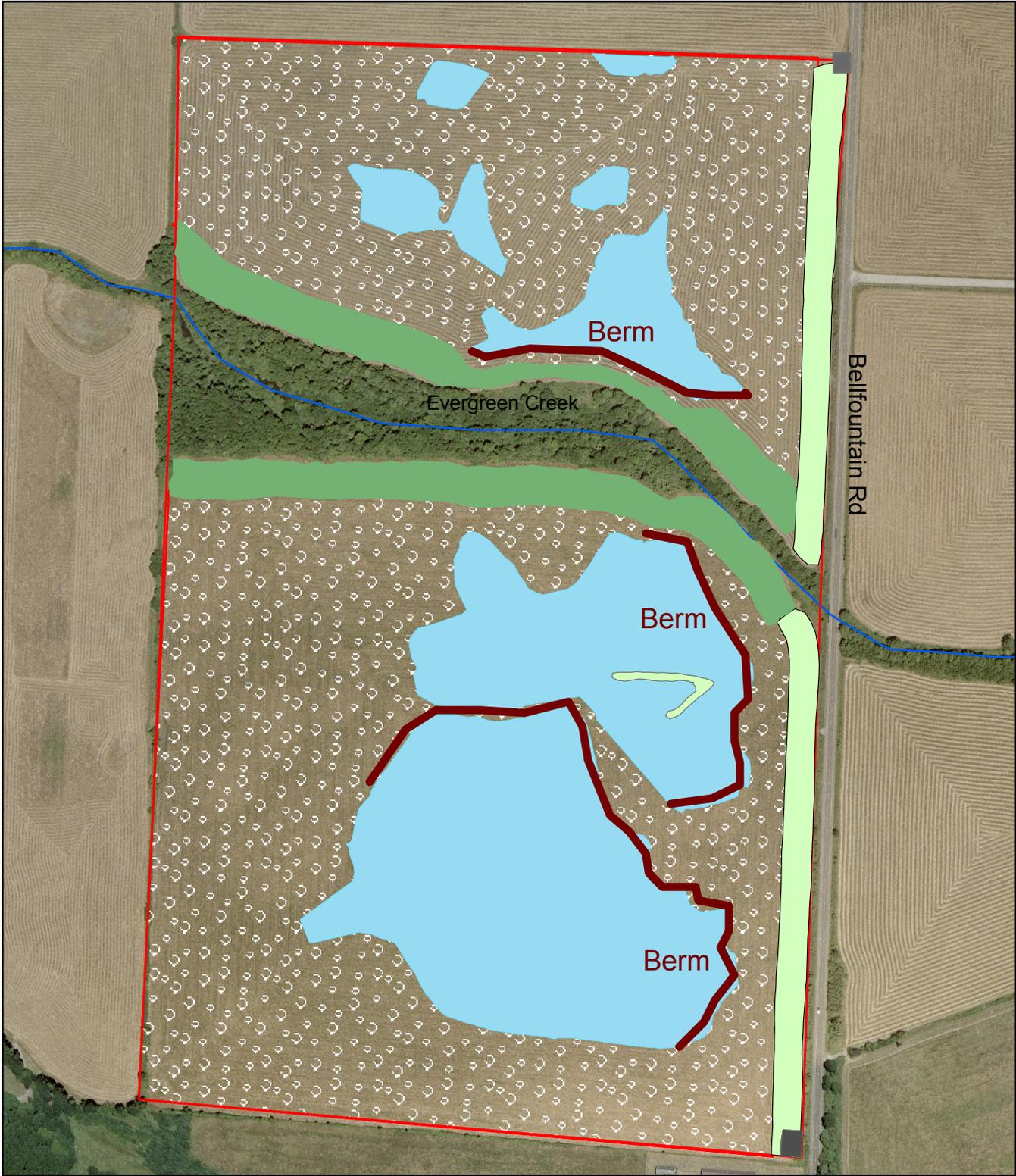


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**THIS MAP IS NOT TO BE USED FOR NAVIGATION**

1: 208,005

Figure 2: Site plan map with all features and infrastructure labeled



1 inch = 471 feet